



U.S. Department
of Transportation
**National Highway
Traffic Safety
Administration**

ODI RESUME

INVESTIGATION: PE 02-060

DATE OPENED: August 8, 2002 DATE CLOSED: November 21, 2002

SUBJECT: ABS Tone Ring Corrodes causing unintended ABS
actuation

PROMPTED BY: Liaison Transport Canada

PRINCIPAL ENGINEER: Tom Bowman

MANUFACTURER: International Truck and Engine Corporation

MODEL(S):

1552 SC	1652 SC	1652 UPS	3000 RE Bus	3200
3400	3800	4200 4 x 2	4300 4 x 2	4400 4 x 2
4700 4 x 2	4700 GLR	4700 LPX	4900 4 x 2	CE Bus
CE Bus	CE CMRCL	F650 4 x 2	FE Bus	FE CMRCL
RE Bus	RE CMRCL			

SC - stripped chassis RE - rear engine GLR - glider LPX - low profile

CE - conventional engine FE - front engine CMRCL - commercial

This listing includes all International Truck models equipped with Hydraulic Braked ABS.

MODEL YEAR(S): 1999 - 2003

EQUIPMENT POPULATION: Approximately 97,000 vehicles (as of Sept 30, 2002).

PROBLEM DESCRIPTION: International Truck and Engine has investigated this issue and concluded that the "ABS ECU... can misinterpret false wheel speed signals resulting from an incorrect gap between the sensor and tone ring. This can be caused by various conditions, including a corroded tone ring. If one of these conditions occurs, the ECU can improperly activate the ABS, instead of deactivating the ABS in response to a false signal."

FAILURE REPORT SUMMARY

	ODI	MANUFACTURER	TOTAL
COMPLAINTS (Int'l Truck Warranty Claims):	0	1724	1724
CRASHES	0	5	5
INJ CRASHES:	0	0	0
# INJURIES:	0	0	0
FATAL CRASHES:	0	0	0
# FATALITIES	0	0	0

ACTION: International Truck has initiated a Campaign (NHTSA 02V-252) to address this issue. Recommendation is to close this Preliminary Evaluation (PE).

ENGINEER: [Signature] DIV CHF: [Signature] OFC DIR: [Signature]

DATE: 11/20/02 DATE: 11/21/02 DATE: 11-21-02

SUMMARY: On August 8, 2002 ODI initiated PE 02-060 based on vehicle operator claims that vehicle stopping distances increase due to unintended ABS (Anti-Lock Brake System) cycling caused by weak or faulty signals generated by corroded ABS tone ring(s).

International Truck and Engine has investigated this issue and has concluded that the "ABS ECU... can misinterpret false wheel speed signals resulting from an incorrect gap between the sensor and tone ring. This can be caused by various conditions, including a corroded tone ring. If one of these conditions occurs, the ECU can improperly activate the ABS, instead of deactivating the ABS in response to a false signal."

On September 13, 2002 International Truck notified NHTSA of their intention to conduct a Campaign (NHTSA 02V-252) to address this issue. International Truck has also provided ODI with additional information in a November 8, 2002 response to ODI's October 3, 2002 request for information. At ODI request, International Truck supplied further information to ODI at a meeting held in Ft Wayne, Indiana on November 14, 2002.

Since International Truck has initiated responsive actions, this Preliminary Analysis is closed.

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11/22/02